REMARKS

The above amendment and these remarks are filed in response to the restriction requirement issued in the above identified application on 31 Mar 2004.

Interview

Applicants' attorney expresses appreciation for courtesy extended by Examiner Raquel Alvarez in telephone interviews conducted on 16 April 2004 for the purpose of clarifying the restriction requirement and the renumbering of the claims. Examiner Alvarez clarified that claim 22 (old claim 50) should be considered in invention IV. In the following table, applicants set forth their understanding of the renumbering and invention group assignments:

Current Claim Number	Original Claim Number	Invention Group
1	1	I
2	2	I
3	3	I
4	4	I
5	5	I
6	6	I

7	7	I
8	8	I
9	9	I
10	10	I
11	11	I
12	12	I
13	13	I
14	14	I
15	15	I
16	16	I
17	20	I
18	33	I
19	34	I
20	36	I
21	48	I
22	50	IV
23	51	I
24	52	II
25	53	III
26	54	I
27	56	III
28	59	Not specified
29	37	IV
30	38	IV
31	39	IV
32	40	IV
33	41	IV
34	42	IV

35	43	IV
36	44	IV
37	45	IV
38	46	IV
39	47	V
40	55	I
41	57	I
60	17	III
61	18	III
62	19	III

Election

Applicants elect, without prejudice, to prosecute the claims of invention group I, together with claim 28 (which is not subject to the restriction requirement, which is pending in the case, and which is similar in content to claim 26, which has been designated to invention group I).

Arguments

With respect to claims 1-7, 9-21, 22-23, 26, 28, and 40-41, the rejections of the Examiner in the parent case seem to rest on these two ideas:

1. That the IBM Bulletin, because it <u>contains</u> a business process, can be interpreted to be a <u>method</u> of <u>representing all</u> business processes. 2. That Billyard, because it represents physical objects in 3-dimensional space, can be interpreted to be a method for representing anything (or at least, business processes) in a 3-dimensional space.

To elaborate on what applicants characterize as Examiner position 1;

Concerning the IBM Bulletin, it is true that it portrays a business process. And parts of its description can be interpreted as a noun, verb and adjective. But it is very apparent that this is not meant to be portrayal of all business processes. Nor is the breakdown into the {noun, verb, adjective} tuple called out in IBM Bulletin. The fact that the single business process (or small collection of business processes) portrayed in the IBM Bulletin can be cast as a tuple as defined in applicants' invention, is merely an example of the power of applicants' invention to encompass and represent all business processes.

Said another way; any prior art containing a business process should be able to be cast as a (perhaps complex) set of tuples (this is part of the point of applicants'

invention). That does not make these business processes a general method of representing all business processes.

And, of course, unlike applicants' invention, the IBM

Bulletin is not about <u>representing</u> business processes, but rather is concerned with "<u>managing</u> workflow using database techniques".

To elaborate on what applicants characterize as Examiner position 2;

Of course, physical objects exist in 3-D space, and computer representations of physical objects must deal with 3-D space. The jump from physical objects to the abstract entities that are business processes is not supported by any of the Billyard teachings.

There is value in being able to represent abstract entities in a 3-D space, largely due to people's innate and intuitive grasp of these spaces. This is partly what makes representing business processes in a 3-D space useful. The key to applicants' invention is in identifying the three dimensions (verb, noun, adjective) that can be used to represent business processes. Then, exploiting that

representation.

These two distinctions, (1) the three dimensions (noun, verb, adjective tuple) used (2) to represent any business process, are present in all of the claims under rejection.

Responding to Examiner's points in response to applicants assertions in the previous amendment;

Page 11, "a. The applicant argues that the IBM Bulletin doesn't disclose a business process. ..."

Response: applicants agree that IBM Bulletin does disclose a business process. What it does not do is disclose a system or method, or the like, for representing (any or all) business processes. Applicants have amended claim 1 and others to clarify this point.

Page 11, "b. The Examiner asserts that the individual pieces are not the business process itself but combined together they represent a business process or process of a business."

Response: Applicants agree. IBM Bulletin does contain a

business process. The invention which applicants have made and claim concerns recognizing the three elements (noun, verb, attribute) as common to all business processes and in using these to decompose any given business process into these three entities, hierarchically. Then, to use these three decompositional elements to define a space, conveniently represented as 3-dimensional, that can be used to hold (in theory) all business processes. The Examiner has essentially stated the opposite -- that a noun, verb and attribute can be combined into a business process. Composition and decomposition are two sides of the same coin -- applicants' invention posits both the decomposition of business processes into tuples, and (unavoidably) posits the composition of businesses from tuples. All of applicants unallowed claims refer to these tuples, or points, in 3dimensional and/or navigation space.

Page 11, item b, continues; "The work-item defined in IBM Bulletin performs the function of a noun.... The Examiner assert that the reference does not have to use the same words"

Response: Again, applicants agree that same words are not essential. (Just as important, mere verbal correspondence

is not sufficient when the words represent significantly different concepts.) The business process in IBM Bulletin can be interpreted as containing a noun, verb (and adjective), and that it can be represented by applicants' invention. As such, it serves as an example of the general nature of applicants' invention to represent any business process.

Page 11, "c. Examiner asserts that the work-items are lists of work to be performed and since a verb is defined as, ..."

Response: as above -- IBM Bulletin serves as an example of how applicants' invention can encompass a business process that does not employ the tuples explicitly.

Page 12, "d. ... Examiner also asserts that Applicants argument that Billyard points do not represent a business process are moot because in response to application's argument against the references individually, one cannot show non obviousness by attacking references individually where the rejections are based on combinations of references. ..."

Response: The idea that by combining the IBM Bulletin (which

contains an instance of a business process) with Billyard (which concerns representing physical objects in 3D space), can result in applicants' invention seems to applicants to be a huge conceptual leap. It leaves open the key question of how to define the dimensions. Neither the IBM Bulletin nor Billyard provide any guidance on this question, for business processes. In fact, the IBM Bulletin is very weak, and completely implicit, on the concept of a business process itself, so leaves open the question of what entity should be represented in a 3D space. And, of course, Billyard says nothing about business processes, nor how to separate or define the dimensions for business processes.

Quoting from the Examiner's original objection to claim 1:

"It would have been obvious to a person of ordinary skill in
the art at the time of the Applicant's invention to have
included displaying the points set forth in the IBM Bulletin
as a point in navigation space because such a modification
would define the extent of points for an object in each
dimension and would provide a test for determining whether
an object will be present in viewing space (page 3, lines
23-, page 4, lines 1-7)."

"...the points set forth in ..." What points are these?

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The Examiner is apparently referring to the Bulletin's work-lists and work-items. Applicants' invention claims business processes as the point, not the coordinates which locate the point in 3D space (the tuples of noun, verb, attribute). This illustrates the non-obviousness of applying a business process in the IBM Bulletin to the business process representation of applicants' claims.

- "... in a navigation space ..." What navigation space would have been obvious to a person of ordinary skill in the art, from reading IBM Bulletin? The IBM Bulletin does not mention any such space, does not define its dimensions, nor the values for those dimensions. Hence, the ancillary properties of the applicants' navigation space (nested spaces, access to the business process definition, etc.) are not evident, and not obvious, in the IBM Bulletin.
- "...would define the extent of the points..." The IBM

 Bulletin does not define the extent of values possible for
 each dimension. And, of course, Billyard does not either,
 since it deals with physical space, whose dimensions are
 defined by length, width and height. Again, this
 illustrates the non-obviousness applying the IBM Bulletin to
 applicants definitions of noun, verb and adjective

dimensions.

Page 12, "e. In response to claim 2, applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. ..."

Response: To reiterate the point made above; combining IBM Bulletin with Billyard does not define the 3 dimensions that generalize business processes. Applicants assert the combination, by "ordinary skill", could not result in applicants' invention. In this case, the "hindsight" reasoning applicants object to relies so entirely on applicants' own disclosure as to be unsustainable.

Page 12, "f. In response to claim 3 and 4, applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies ... are not recited in the rejected claim(s). ..."

Response: Applicants have amended claim 3 to clarify that the zoom feature of applicants' invention relates to

displaying within hierarchically nested navigation space logical changes in context for navigating the process space to explore or define business processes. Claim 4 depends from claim 3.

Page 13, "g. In response to claim 5, the Examiner asserts that a database of the Workflow process and definition exists in IBM Bulletin."

Response: Applicants agree that IBM Bulletin has a database.

The point is that is it not a database of generally represented business processes. Applicants have amended claim 5 to clarify this distinction.

Page 13, "h. In response to claim 6, The Examiner asserts that IBM Bulletin reaches that depending on the work-items, the users ... Change the work-list accordingly."

Response: claim 6 is about editing the business process itself (something missing from the IBM Bulletin), not updating data that is the subject of the business process. If business process A (for example) concerns obtaining the result of a medical test, the data obtained is the subject of business process A. Our claim 6 is about editing

(changing) business process A itself.

Page 13, "I. In response to claim 7, The Examiner asserts that on page 200 of IBM Bulletin it discloses that humans or users can invoke the work to be performed on the work-items."

Response: Yes, humans or users can invoke the business process portrayed in the IBM Bulletin. This is not the same as selecting a business process in the context of all other defined business processes (for an organization) in a 3D process space, and causing the selected process to be executed. This context is key to applicants' invention.

Applicants have amended claim 7 to clarify this point.

SUMMARY AND CONCLUSION

Applicants urge that the above amendments be entered and the case passed to issue with claims 1-7, 9-21, 23, 26, 28, 40-41.

The Application is believed to be in condition for allowance and such action by the Examiner is urged. Should differences remain, however, which do not place one/more of the remaining claims in condition for allowance, the Examiner is requested to phone the undersigned at the number provided below for the purpose of providing constructive assistance and suggestions in accordance with M.P.E.P. Sections 707.02(j) and 707.03 in order that allowable claims can be presented, thereby placing the Application in condition for allowance without further proceedings being necessary.

Sincerely,

E. B. Boden, et al.

Ву

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Req. No. 24,886

Date: 16 April 2004

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